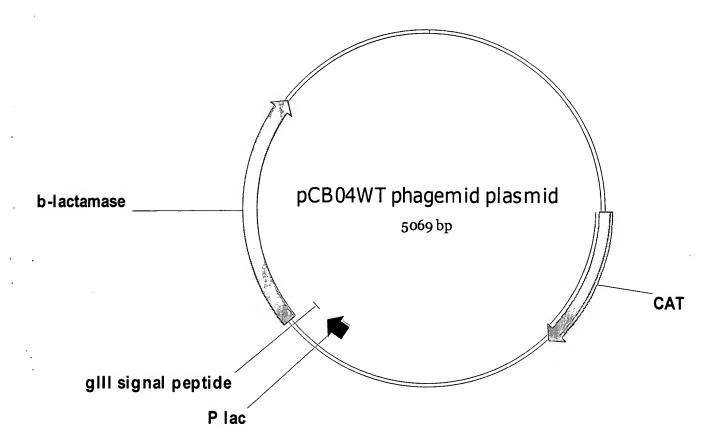
Generation of Stabilized Proteins by Combinatorial Consensus Mutagenesis Aehle et al. SN# Unassigned Docket No. GC816 Sheet 1 of 13

FIGURE 1.



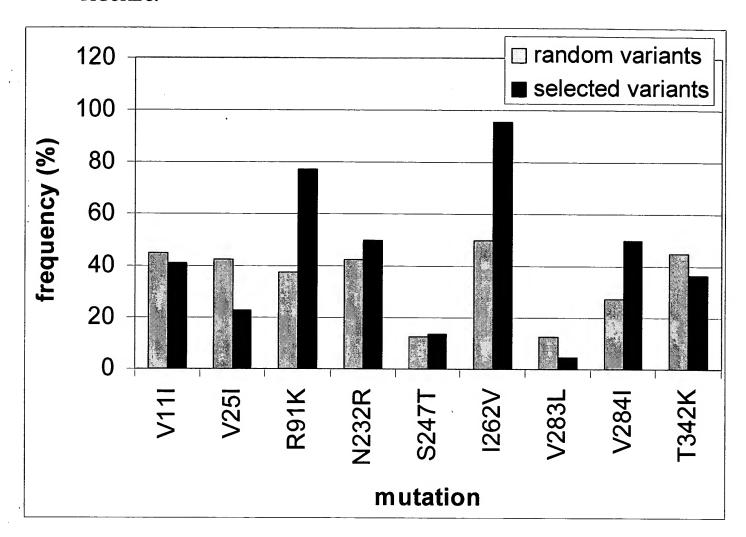
Generation of Stabilized Proteins by Combinatorial Consensus Mutagenesis Aehle et al. SN# Unassigned Docket No. GC816 Sheet 2 of 13

FIGURE 2

gagtcgtattacaattcactggccgtcgttttacaacgtcgtgactgggaaaaccctggcgttacccaacttaatcgccttgcagcacatccccctttcgccagctggc gtaatagcgaagaggcccgcaccgatcgcccttcccaacagttgcgcagcctgaatggcgaatggacgcgccctgtagcggcgcattaagcgcggcggtgtg ggtttttcgccctttgacgttggagtccacgttctttaatagtggactcttgttccaaactggaacaacactcaaccctatctcggtctattcttttgatttataagggattttg egggettgtetgeteeeggeateegettaeagaeaagetgtgaeegteteegggagetgeatgtgteagaggtttteaeegteateaeegaaaegegegagaegaa agggcetegtgataegeetatttttataggttaatgteatgataataatggtttettagaegteaggtggcaetttteggggaaatgtgegeggaaeceetatttgtttattt gaataaataaatcctggtgtccctgttgataccgggaagccctgggccaacttttggcgaaaatgagacgttgatcggcacgtaagaggttccaactttcaccataat gaa ataa gat cactaccgggcgt attttttg agttatcg agatttt cag gag ctaa aggaa gctaa aat gga gaa aa aa aat cact ggat at accaccgt t gat at accaccg to the companion of the companion oa atgg catcg taa agaa catttt gagg catttc agt cag ttgct caat gt acctata accaga ccgt tcag ctgg at attacgg cctttt taa agaa ccgt aa agaa aa aa accaga ccgt accaga accagtgttacggtgaaaacctggcctatttccctaaagggtttattgagaatatgtttttcgtctcagccaatccctgggtgagtttcaccagttttgatttaaacgtggccaata tggacaact tcttcgccccgttttcaccatgggcaaat at tatacgcaaggcgacaaggtgctgatgccgctggcgattcaggttcatcatgccgtctgtgatggcttccat g t c g a cat g a ta a ta ca a cat g t c g a ta g g c g g g g g g g g g g a ta a g a ta g g t g a ta g g t g a ta g g ta a g a ta g g t g a ta g g a ta g g t g a ta g g t g a ta g a ta g ggtagttaggccaccacttcaagaactctgtagcaccgcctacatacctcgctctgctaatcctgttaccagtggctgctgccagtggcgataagtcgtgtcttaccggagatacctacagcgtgagctatgagaaagcgccacgcttcccgaagggagaaaggcggacaggtatccggtaagcggcagggtcggaacaggagcgcac atggaaaaacgccagcaacgcggcctttttacggttcctggccttttgctggccttttgctcacatgttctttcctgcgttatcccctgattctgtggataaccgtattacc gcctttgagtgagctgataccgctcgccgcagccgaacgaccgagcgcagcgagtcagtgagcgaggaagcggaagagcgcccaatacgccaaaccgcctctccaccccaggetttacactttatgettccggetcgtatgttgtgtggaattgtgageggataacaatttcacacaggaaacagetatgaccatgattacgccaagetatttaggtgacactatagaatactcaagcttaagaaggagatatacatatgaaaaagttactattcgcaattccactagtcgttcctttctattctcactctacgccagtgtcag attaca catttgg caag g ccgatatcg cgg cgaataa acccgttacg cct cag accctgttcg ag ctgg g ttctataag taaaaccttcaccg g cgttttag g tgg g g catttag g ctgg g ttctataag taaaaccttcaccg g cgttttag g tgg g g catttag g ctgg g ttctataag taaaaccttcaccg g cgttttag g tgg g ctgg g ttctataag taaaaccttcaccg g cgttttag g tgg g ctgg g ttctataag taaaaccttcaccg g cgttttag g tgg g ctgg g ttctataag taaaaccttcaccg g cgttttag g tgg g ctgg g ttctataag taaaaccttcaccg g cgttttag g tgg g ctgg g ttctataag taaaaccttcaccg g cgttttag g tgg g ctgg g ttctataag taaaaccttcaccg g cgt g ttctataag taaaaccttcaccg g cgt g ttctataag taaaaccttcaccg g cgt g ctg g catgccattgctcgcggtgaaatttcgctggacgatgcggtgaccagatactggccacagctgacgggcaagcagtggcagggtattcgtatgctggatctcgccac ctacaccgctggcggcctgccgctacaggtaccggatgaggtcacggataacgcctccctgctgcgcttttatcaaaactggcagccgcagtggaagcctggcac a acgegt ctttacgccaacgccag categgt ctttttggt geget geggt caaacctt ctggcatgccctat gag caggccat gacgacgcgggt ccttaagccgcaggccat gacgacgcgggt ccttaagccgcaggcat gacgacgcgggt ccttaagccgcaggacgcgggt caaacctt ctggcatgccctat gag caggccat gacgacgcgggt ccttaagccgcgggt caaacctt ctggcatgccctat gag caggccat gacgacgcgggt ccttaagccgcgggt caaacctt ctggcatgccctat gag caggccat gacgacgcgggt ccttaagccgcgggt caaacctt ctggcatgccctat gag caggccat gacgacgcgggt ccttaagccgggt caaacctt ctggcatgccctat gag caggccat gacgacgcgggt ccttaagccgggt caaacctt ctggcatgccctat gag caaacctt ctggcatgccctatgcccctcaagctggaccatacctggattaacgtgccgaaagcggaagaggcgcattacgcctggggctatcgtgacggtaaagcggtgcgcgtttcgccgggtatgctg gatgcacaagcctatggcgtgaaaaccaacgtgcaggatatggcgaactgggtcatggccaacatggccccggagaacgttgctgatgcctcacttaagcaggg gcagcgacagtaaggtagcgctagcgccgttgcccgtggcagaagtgaatccaccggctcccccggtcaaagcgtcctgggtccataaaactggctctactggc gggtttggatcctacgtggcctttattcctgaaaagcagatcggtattgtgatgctcgcgaatacaagctatccgaacccggctcgagttgaggcggcataccatatc ctagaggegetacagggtggeggateggeegaaactgttgaacaccaccatcatcaccattageceggggetgeteactacactctaggtggaggttcaccattc gtttgtgaatatcaaggccaatcgtctgacctgcctcaacctcctgtcaatgctggcggcgctctggtggtggttctggtggcggctctgagggtggtggtctgag ggtggcggttctgagggtggcggctctgagggaggcggttccggtggtggctctggttccggtgattttgattatgaaaagatggcaaacgctaataagggggcta tgaccgaaaatgccgatgaaaacgcgctacagtctgacgctaaaggcaaacttgattctgtcgctactgattacggtgctgctatcgatggtttcattggtgacgtttc eggeettgetaatggtaatggtgetaetggtgattttgetggetetaatteeeaaatggeteaagteggtgaeggtgataatteaeetttaatgaataattteegteaatatt tacetteceteceteaateggttgaatgtegeeettttgtetttagegetggtaaaceatatgaattttetattgattgtgaeaaaataaacttatteegtggtgtetttgegttt cttttatatgttgccacctttatgtatgtattttctacgtttgctaacatactgcgtaataaggagtcttaataagaattcgccctatagt (SEQ ID NO:1)

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FIGURE 3.



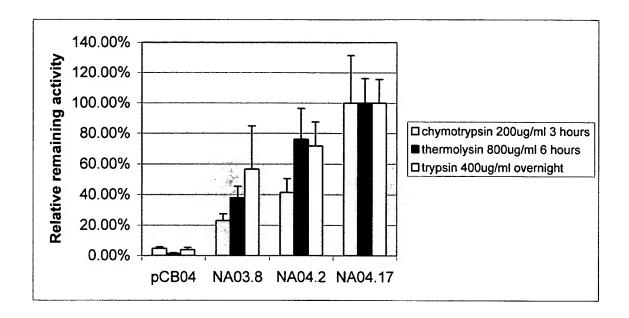
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A2629	-0.299	5	26
V284I	875.0	19	4
A583F	0.334	က	7
12627	₽6Z.0	15	ω
TTASS	771.0	4	10
NZ3ZK	2 44 .0	9	က
ATSSV	115.0-	9	27
T322N	861.0-	∞	2
T2255	271.0	က	7
ÕS I Ə E	944.0-	∞	28
480SA	120.0-	ω	16
S⊉61A	141.0	4	12
XI10E	-0.256	4	25
SESIA	699.0	10	7
AOEIS	201.0-	14	19
MI06L	371.0-	3	20
T201A	-0.223	2	23
баее	957.0	တ	_
в в т	798.0	7	9
ΛG9I	91 <u>2.0</u> -	20	22
E43X	260.0-	ည	18
X41E	-0.232	7	24
V25I	1 61.0	7	တ
GEIA	9£0.0	24	15
VIII	375.0	4	ა
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Generation of Stabilized Proteins by Combinatorial Consensus Mutagenesis Aehle et al. SN# Unassigned Docket No. GC816 Sheet 4 of 13

FIGURE 4

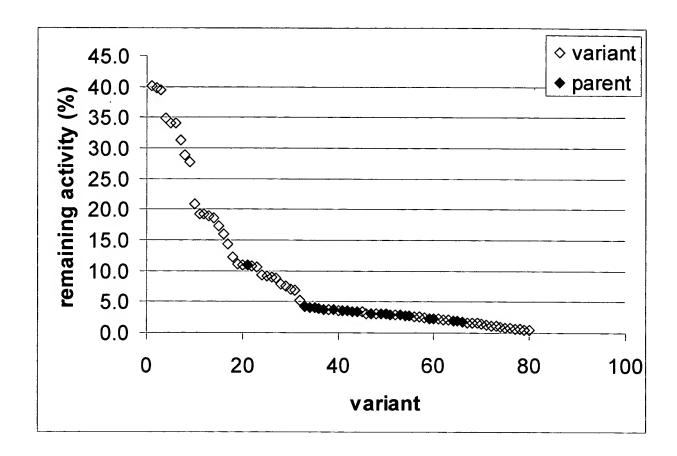
Generation of Stabilized Proteins by Combinatorial Consensus Mutagenesis Aehle et al. SN# Unassigned Docket No. GC816 Sheet 5 of 13

FIGURE 5.



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FIGURE 6.



Generation of Stabilized Proteins by Combinatorial Consensus Mutagenesis Aehle et al. SN# Unassigned Docket No. GC816 Sheet 7 of 13

FIGURE 7.

heavy chain:

Qvklqqsgaelvrsgtsvklsctasgfnikdsymhwlrqgpeqglewigwidpengdteyapkfqgkatfttdtssntaylqlssltsedtavyycnegtptgpyyfdywgqgttvt vss (SEQ ID NO:2)

linker:

Ggggsggggggg (SEQ ID NO:3)

light chain: Envltqspaimsaspgekvtitcsasssvsymhwfqqkpgtspklwiystsnlasgvparfsgsgsgtsysltisrmeaedaatyycqqrssypltfgagtklelkraat (SEQ ID NO:4)

anwvmanmapenvadasIkqgialaqsrywrigsmyqglgwemInwpveantvvetsfgnvalapIpvaevnppappvkaswvhktgstggfgsyvafipekqigivmI antsypnparveaayhilealq (SEQ ID NO:5) qvpdevtdnaslirfyqnwqpqwkpgttrlyanasiglfgalavkpsgmpyeqamttrvlkplkldhtwinvpkaeeahyawgyrdgkavrvspgmldaqaygvktnvqdm LvsekqlaevvantitpImkaqsvpgmavaviyqgkphyytfgkadiaankpvtpqtlfelgsisktftgvlggdaiargeislddavtrywpqltgkqwqgirmldlatytagglpl

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FIGURE 8.

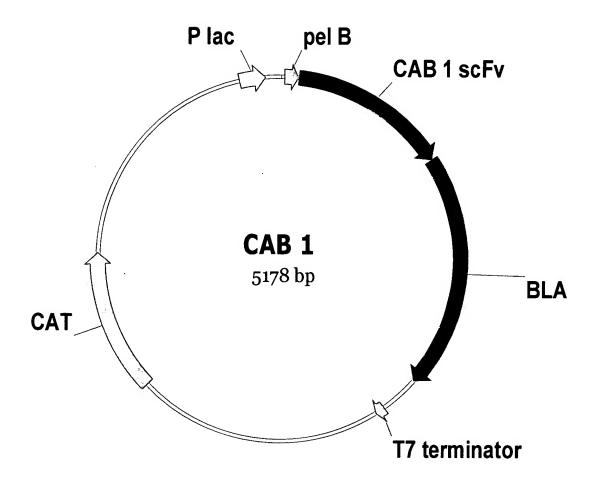


FIGURE 9.

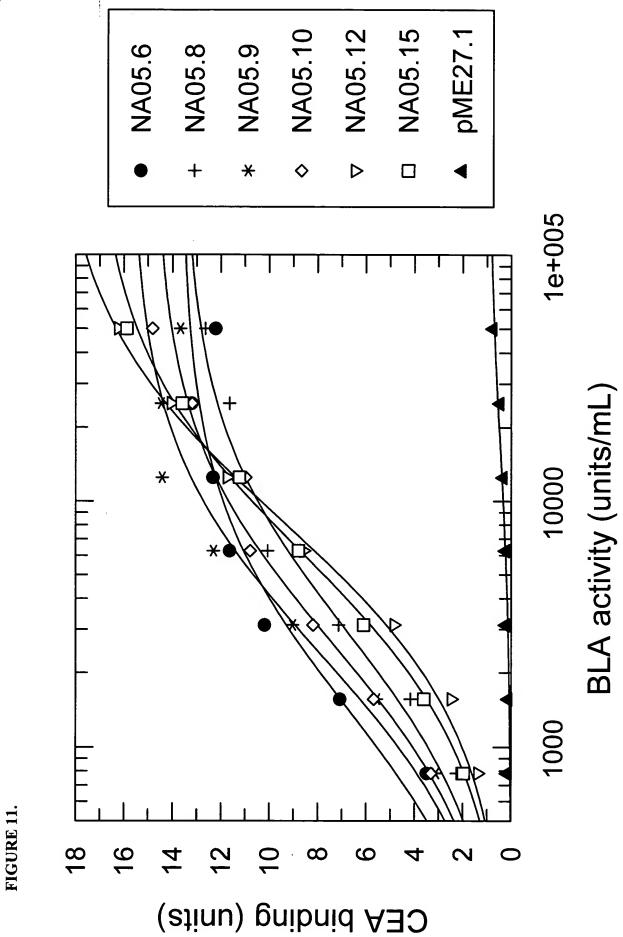
Generation of Stabilized Proteins by Combinatorial Consensus Mutagenesis Aehle et al. SN# Unassigned Docket No. GC816 Sheet 9 of 13

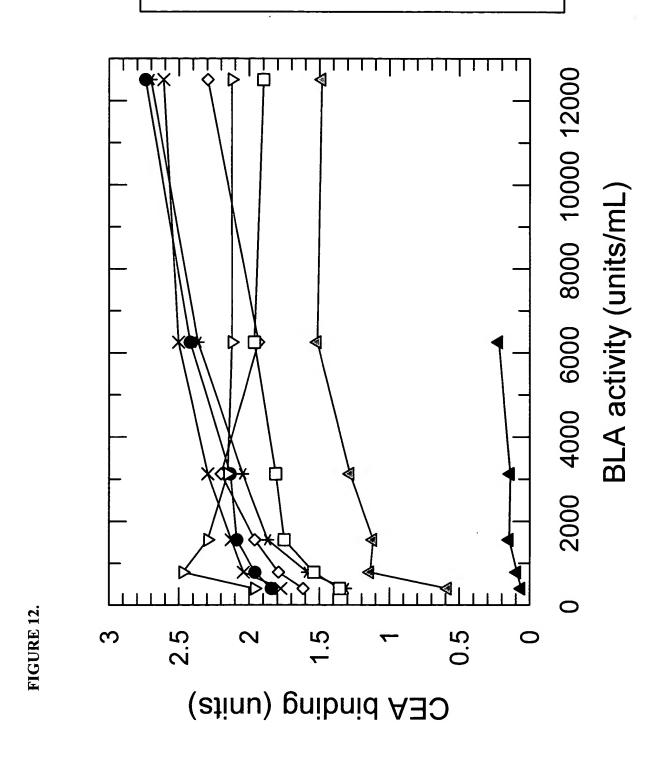
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FIGURE 13.

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